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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/018,131	01/31/2002	Heinrich Wehberg	18326.0000	7052

7590

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EXAMINER

JAIN, RUBY

ART UNIT PAPER NUMBER

3737

9

DATE MAILED: 03/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/018,131

Applicant(s)

WEHBERG, HEINRICH

Examiner

Ruby Jain

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 43 and 44 is/are allowed.
- 6) ☒ Claim(s) 17-20, 32-42 and 45-48 is/are rejected.
- 7) ☒ Claim(s) 21-31 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6.7.8.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

2. The substitute specification filed January 16, 2002 has not been entered because it does not conform to 37 CFR 1.125(b) and (c) because: a marked-up copy of the substitute specification has not been supplied.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 17-20, and 45-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown, Jr. U.S. Patent No. 4,524,779, and further in view of Meyers et al. U.S. Patent No. 4,135,497.

Regarding claims 17-20, 45-48, Brown discloses a device useful in the early detection of cancer or other contralateral heat differentials in the body due to various abnormal or disease conditions or to monitor chemotherapy or progress of surgical activity (abstract). Brown discloses a casing having at least one opaque side and a

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non-opaque side, where the non-opaque side is positioned to face the breast (Figures 1 and 2, elements 14, 16, and 17), a thermooptical foil (16) for producing a thermooptical image of the breast positioned between the casing and the breast (Figure 1 and column 5, lines 30-46), a camera (21) mounted to record from within the casing the thermooptical image (Figure 2), and an illuminating system for illuminating the foil within the casing (column 4, lines 52-68).

Brown does not disclose wherein a cooling box is mounted adjacent to the thermooptical foil to cool the foil to a constant temperature for a presettable amount of time when the foil is in contact with the breast.

Meyers discloses an apparatus for detecting temperature variations for aid in the early detection of malignant tissue in the breasts. A film contours to the contour of the tissue and the color pattern produced on the film is observed and recorded photographically to obtain a thermogram of the temperature variation. The contoured film and the tissue are fan cooled for a relatively short period of time to produce a more sensitive color pattern on the film representative of the temperature variations (abstract, column 7, lines 24-31, and column 8, lines 12-21). It is recommended that the room temperature be between 20-22 degrees Celsius. The film is available in temperature ranges from 29-37 degrees Celsius (column 7, lines 40-57). Thus, a cooling-down step may be required to obtain the images in the prescribed temperature range.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to disclose wherein a cooling box is mounted adjacent to the thermooptical foil to cool the foil to a constant temperature for a presettable

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amount of time when the foil is in contact with the breast and where the camera is a digital camera, because it would be advantageous to produce a more sensitized color pattern on the film in the thermooptical image to best aid in the detection of malignant tissue in the breasts. Furthermore, Brown discloses that his invention is concerned with controlling the temperature and humidity of the chamber (column 6, lines 29-34); thus, a cooling device would aid in this function.

4. Claims 32 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown, in view of Meyers, and further in view of Panetta et al. U.S. Patent No. 4,599,738.

Regarding claims 32 and 33, Brown in view of Meyers discloses a casing having at least one opaque side and a non-opaque side, where the non-opaque side is positioned to face the breast (Figures 1 and 2, elements 14, 16, and 17). Further disclosed is that the device is held against the upper torso of a patient by a practitioner by means of a pair of handle-grips affixed to the device (column 4, lines 52-55).

Brown in view of Meyers does not disclose wherein the casing of the invention is positioned on a multi-articulation arm mounted on an instrument trolley to permit variable positioning of the casing.

Panetta discloses a mammography compression system wherein the breast examination support unit can be rotated about an axis, translationally moved through pivot arms or linkages, and raised or lowered through the trolley for any desired position or angle. The several pivot and translation movements of the system permit the breast

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support section to fully translate a volume of at least more than a quadrant of a cylinder (column 3, line 46 – column 4, line 2).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to disclose wherein the casing of the invention is positioned on a multi-articulation arm mounted on an instrument trolley to permit variable positioning of the casing, as per the teachings of Panetta into the teachings of Brown in view of Meyers, because the high degree of mobility of the instrument helps make the imaging procedure more comfortable for the patient. A full multi-positioned series of shots can be taken while the patient remains seated or standing. Furthermore, Brown already discloses wherein his device is easily mobile because the casing is held against the upper torso of a patient by a practitioner by means of a pair of handle-grips affixed to the device, which can be moved around with little or no difficulty.

5. Claims 34-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown, in view of Meyers, and further in view of Porrazzo et al. U.S. Patent No. 5,837,197.

Regarding claims 34-42, Brown in view of Meyers discloses a camera (21) mounted to record from within the casing the thermooptical image (Figure 2) and an illuminating system for illuminating the foil within the casing (column 4, lines 52-68).

Brown in view of Meyers does not disclose wherein the thermooptical image further comprises of a digital camera connected to a monitor screen with a plurality of windows, a computer for processing and operating the apparatus, a storage medium for

storing digital images, a printer output device, an image evaluating device for looking at pathological changes, structures, and reference images.

Porrazzo discloses wherein the fertility analysis and reproductive health system comprises of a miniaturized digital camera with computer control board and memory system. The capabilities of the system are, but not limited to: 1) ability to store images for later observation and printing, 2) automatically record and update a daily chart of a woman's health status, 3) provide telecommunications to other third parties for digital transmission for second opinions, 4) input/output means for downloading data for databases construction and comparison, and 5) an interface so that digital images may be displayed on a video display terminal or similar devices (column 25, lines 36-67).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to disclose wherein the thermooptical image further comprises of a digital camera connected to a monitor screen with a plurality of windows, a computer for processing and operating the apparatus, a storage medium for storing digital images, a printer output device, an image evaluating device for looking at pathological changes, structures, and reference images, as per the teachings of Porrazzo into the teachings of Brown in view of Meyers, because as technology advances, the functional capabilities of the cameras are going to evolve. The modern digital camera is better equipped with image processing and diagnosing means. Replacing a modern camera for an older version will not be a detriment to the functionality of the device; it will only make it more compatible with the present technology.

Allowable Subject Matter


6. Claims 43 and 44 are allowed.
7. Claims 21-31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

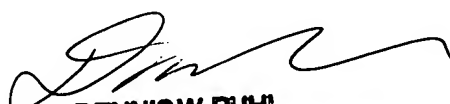
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ruby Jain whose telephone number is (703) 605-4250. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dennis Ruhl can be reached on (703) 308-2262. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RJ 
March 4, 2004


DENNIS W. RUHL
SUPERVISORY PATENT EXAMINER